

Practitioner's Docket No. P.19385



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Frederick Johannes Bruwer

Application No.: 10/014,664

Group No.: 2131

Filed: December 14, 2001

Examiner: A. Moorthy

For: METHOD AND APPARATUS FOR TRANSFERRING DATA

Mail Stop AF

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Applicant requests review of the final rejection in the above-identified application.

This request is being filed with a Notice of Appeal.

The review is requested for the reasons present on the attached Reasons for Review.

Date: April 7, 2006

William A. Blake

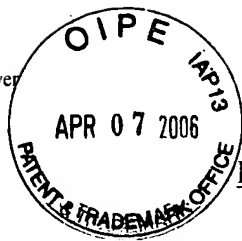
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REASONS FOR REVIEW

The claims in the subject application are currently under final rejection as set forth in the Office Action, which was mailed on December 8, 2005. There are two independent claims currently pending in the application, claims 25 and 52. Claim 25 stands rejected under 35 U.S.C. 102 as being anticipated by US Patent No. 5,500,897 to Hartman, Jr., while claim 52 stands rejected under 35 U.S.C. 102 as being anticipated by US Patent No. 6,484,260 to Scott et al. A cursory review of the references will show that the rejections are totally without merit. Quite simply, there is no way that either of the cited references can be interpreted to anticipate each and every one of the limitations recited in claims 25 and 52 as required by the provisions of 35 U.S.C. 102.

The invention recited in claims 25 and 52 relates to a method and apparatus for securely transferring data between a transmitter and a receiver which insure that only authorized remote transmitter encoders can transfer commands to a receiver decoder. The invention represents an improvement on a known technique whereby clocks or timers in a transmitter and a receiver are first reset or synchronized with one another so that their values are the same. Then, the value of the transmitter timer is sent to the receiver each time the transmitter communicates with the receiver so that the timer values can be compared to verify they are the same as each other, which acts as an authentication that the transmission came from an authorized transmitter. The present invention avoids the need for initial clock or counter synchronization by employing what is referred to as a Timer Relationship Value (TRV) which is generated from the *difference* between the values of the encoder and decoder timers. The TRV is generated during a learning process in which the decoder receives identification information from the transmitter, including the clock value of the encoder, and determines the mathematical difference between the encoder

clock value and the decoder clock value at that instant. For example, if the transmitter(encoder) clock value is “20” and the receiver(decoder) clock value is “15”, then the TRV would be 20-15 or 5. The TRV is then used each time a data transmission is received from the transmitter encoder. More particularly, the encoder and decoder clock values are compared and their relationship with the stored timer relationship value is then used to validate that the received signal is from the authorized transmitter that was used during the learning process.

The foregoing use of difference values to authenticate a received transmission is completely lacking in both of the references relied upon in the rejections under 35 U.S.C. 102. Regarding the rejection of claim 25 under 35 U.S.C. 102 as being anticipated by US Patent No. 5,500,897 to Hartman, Jr., the Examiner asserts that the majority of the elements in claim 25 are disclosed in column 6, lines 22-49 of Hartman. This assertion is clearly in error. The elements of claim 25 which are clearly not disclosed in Hartman are illustrated in bold in the following copy of the claim:

25. A method of securely transferring data from an encoder to a decoder, said encoder including an encoder timer and said decoder including a decoder timer, the method including the steps of:

- (a) **during a learning process receiving a value of said encoder timer at said decoder timer and generating a timer relationship value which is dependent at least on a difference between the value of the encoder timer and the value of the decoder timer;**
- (b) **storing said timer relationship value in said decoder;**
- (c) at the encoder encrypting a data word which at least in part is based on timer information generated by the encoder timer to form a transmission word;
- (d) transmitting the transmission word to the decoder;
- (e) at the decoder decrypting the transmission word; and

(f) validating the transmission word by comparing the encoder timer value and the decoder timer value and their relationship with the stored timer relationship value.

The passage in Hartman cited by the Examiner makes absolutely no mention of forming a timer relationship value using the difference between a transmitter timer value and a receiver timer value, and then storing and using this timer relationship value to authenticate the transmitter. In fact, the key word “difference” is not found at all in the passage cited by the Examiner and is only used twice in the entire specification of Hartman, each time to refer to a completely different calibration adjustment procedure. More particularly, the sentence beginning at column 10, line 43 reads:

“In a particular implementation of this approach, the *difference* between the present value of TOD clock 126 and the received client TOD clock value is combined with the total number of calibration adjustments made to the client TOD clock since it was set, and the result is divided into the total number of increments over the period since the client TOD clock was set to determine a new calibration adjustment value for the client.”

The foregoing sentence concerns determination of a calibration adjustment value and has nothing to do at all with the formation, storage and use of a timer relationship value based at least on the difference between two clock values for authentication purposes. In the Advisory Action, which was mailed on March 17, 2006, the Examiner rebuts Applicant’s position by asserting that the limitations regarding the formation and storing of the timer relationship value are not present in claim 25. Applicant is frankly baffled by this assertion in view of the bolded elements of claim 25 above that clearly recite these very elements. These steps recite that during a learning process receiving a value of said encoder timer at said decoder timer and generating *a timer relationship value which is dependent at least on a difference between the value of the*

encoder timer and the value of the decoder timer; storing the timer relationship value in said decoder; and validating decrypted transmission words that are later received from the encoder by comparing the encoder timer value and the decoder timer value *and their relationship with the stored timer relationship value*. Nowhere in Hartman are these steps disclosed. As such, Hartman simply does not anticipate claim 25 or any of the claims that depend thereon.

In support of the rejection of claim 52 under 35 U.S.C. 102 as being anticipated by US Patent No. 6,484,260 to Scott et al, the Examiner cites the passage in Scott et al. at column 12, 29-59. Once again, this rejection is clearly without merit. The key elements of claim 52 which are nowhere to be found in Scott et al. are bolded in the following copy of the claim:

52. Apparatus for transferring data which includes an encoder and a decoder and wherein the encoder includes a timer and an encryption unit for encrypting data which at least in part is based on timer information from the encoder timer, thereby to form a transmission word, and the decoder includes a decoder timer, a receiver unit for receiving the encrypted transmission word, a decryption unit for decrypting the received transmission word to extract, at least, the timer information from the encoder, and **a comparator unit for comparing decrypted encoder timer information to timer information from the decoder timer using a timer relationship value, to determine the validity of the transmission word, the timer relationship value being established during a learning process of the encoder and decoder and being dependent at least on a difference between a value of the encoder timer received by the decoder from the encoder during the learning process and a value of the decoder timer.**

Once again, the passage cited by the Examiner has nothing to do with use of a timer relationship value that is dependent on the value of the *difference* between the values of the decoder and encoder timers. Nowhere in Scott is the formation or use of a difference value

mentioned. The Examiner's misinterpretation of Scott is further evidenced by the comments made in the March 17, 2006 Advisory Action in which the Examiner asserts:

"Scott discloses comparing the difference between the stored counter value and the received decrypted value. If the *difference does not match* then the authentication does not take place." (emphasis added)

The second sentence contains the phrase "if the difference does not match" which makes no sense. Does not match what is the question. The fact is that no difference value is stored in Scott so the value of the *difference* between the stored counter value and the received value is not compared to anything. Instead, the stored counter value and the received values are compared to each other and if they match, authentication is confirmed. This is nothing more than the prior art technique of comparing clock values which requires synchronization of the clock values to begin with- a step that the present invention specifically avoids.

In view of the foregoing reasons, it is clear that the rejections of claims 25 and 52, as well as the rejections of the claims that depend thereon, are in error and should be removed. Accordingly, Applicant respectfully submits that the rejections be removed and that the application be remanded to the Examiner for further action.

Respectfully submitted,

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